ABB BALDOR RELIANCE

Customer information packet

CEM2539T-G

40HP, 1770RPM, 3PH, 60HZ, 324TC, OPSB, F1

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11/16/2026 6:42:27 AM

Specifications

Enclosure	OPSB
Frame	324TC
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
	230.0 V @ 60 HZ
Agency Approvals	CSA
	CSA EEV
	NEMA PREMIUM
	UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	99.000 A @ 208.0 V
	98.000 A @ 230.0 V
	49.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.1 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	49.0 a
Insulation Class	H

Part Detail

Revision	E
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	40WGX166
Layout	40LY-000-045
Eff. date	06-27-2024
CD Diagram	CD0005
Poles	04
Leads	9#8
Proprietary	False
Created date	09-23-2019

Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4064M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	27.19 IN
Power Factor	82
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3554LUA												
CAT.NO.	CEM2539T-G			**P/N**						**ENCL**	OPSB	
SPEC.	40-0000-0101	**CC**	010A		**FRAME**	324TC		**SER.NO.**				
HP	40		**CLASS**	H	**HZ**	60						
RPM	1770		**PH**	3	**DES**	A						
VOLTS	230/460			**CODE**	H		**ODE BRG**	6309	**DE BRG**	6312		
AMPS	98/49											
RATING	40C AMB-CONT			**NEMA-NOM-EFF**	94.1		**GREASE**	POLYREX EM				
PF	82	**SER.F.**	1.15			**CT30-60(2:1) VT3-60(20:1)**						
USABLE AT	N/A											
HTR-VOLTS	**HTR-AMPS**			**MAX. SPACE HEATER TEMP.**								

AC Induction Motor Performance Data
Record # 35574
Typical performance - not guaranteed values

Winding: 40WGX166-R003	**Type:** 4064M	**Enclosure:** OPSB

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			40	**Full Load Torque**	119 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			98/49	**Breakdown Torque**	427 LB-FT
R.P.M.			1770	**Pull-up Torque**	187 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	246 LB-FT
NEMA Design Code	A	**KVA Code**	H	**Starting Current**	330 A
Service Factor (S.F.)			1.15	**No-load Current**	21.1 A
NEMA Nom. Eff.	94.1	**Power Factor**	82	**Line-line Res. @ 25ºC**	0.16236 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	41°C
S.F. Amps				**Temp. Rise @ S.F. Load**	51°C
				Locked-rotor Power Factor	32
				Rotor inertia	5.09 LB-FT2

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	43	65	76	82	85	85	84
Efficiency	91.1	94	94.5	94.2	93.6	92.8	93.8
Speed	1792.4	1785	1777.8	1770.2	1762.1	1752.8	1765
Line amperes	24.1	30.7	39.2	48.7	59.3	71.3	55.1

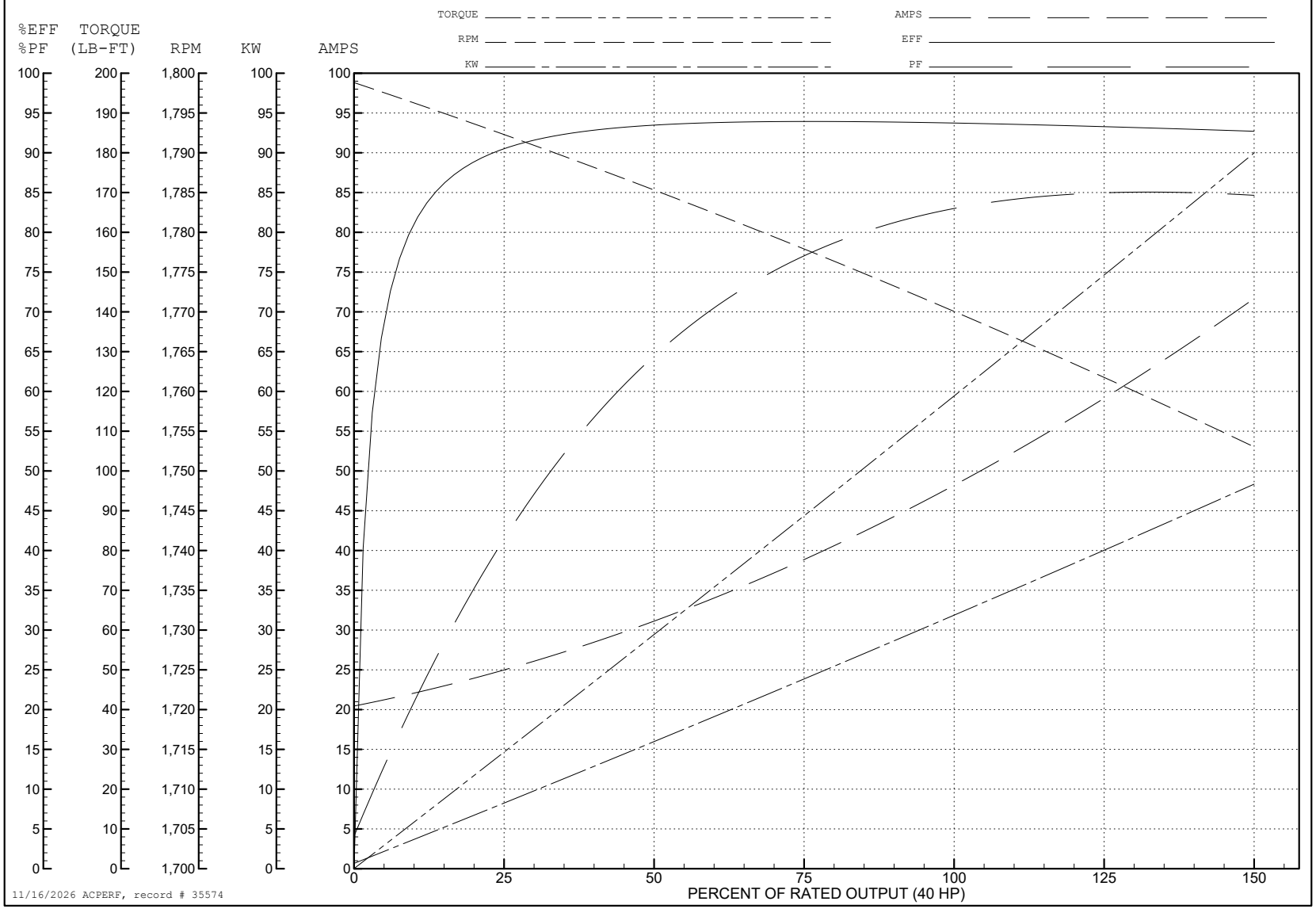
ABB Motors and Mechanical Inc.

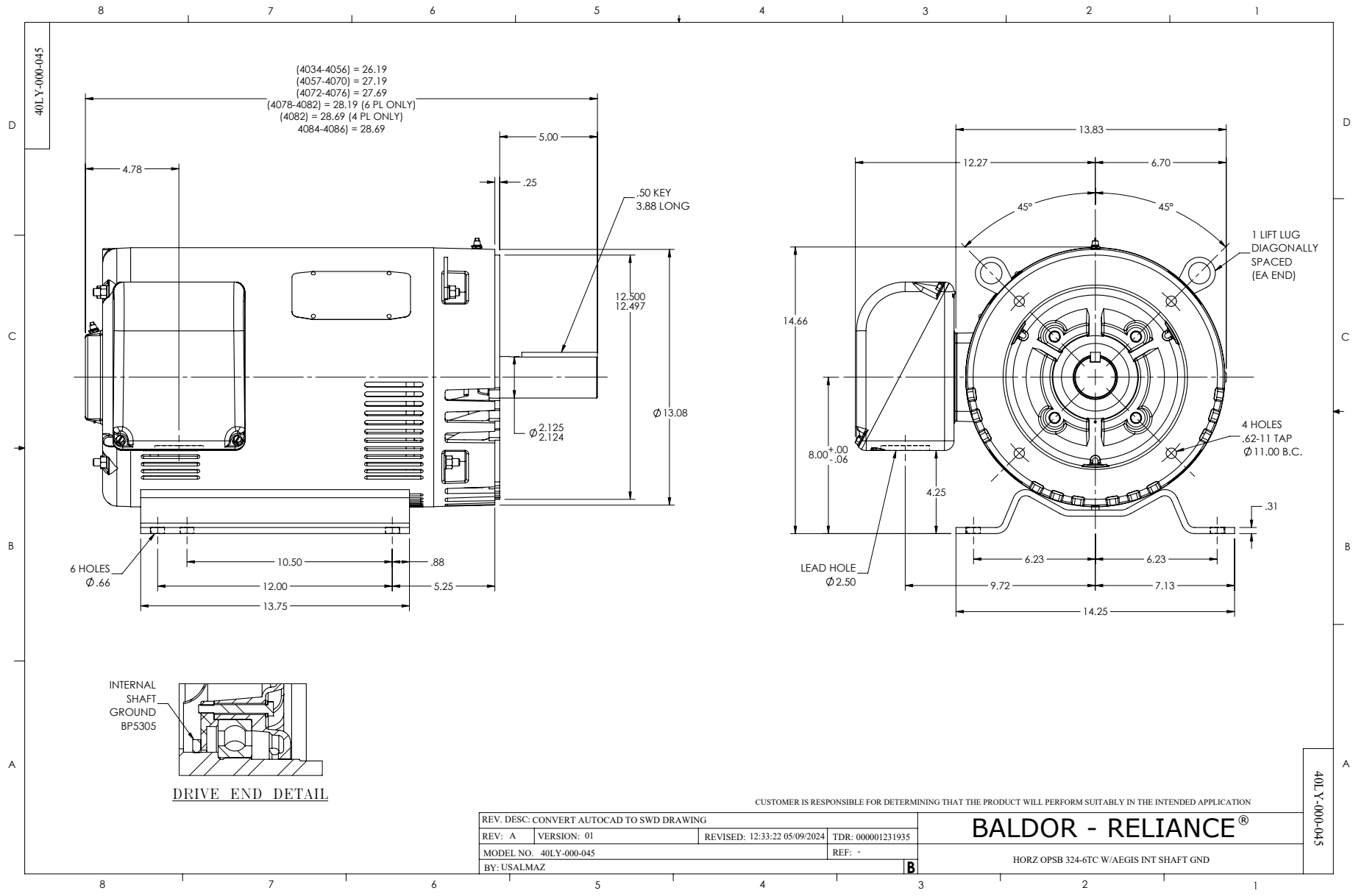
WINDING # 40WGX166

40 HP 3 PH 60 HZ 1770 RPM 460 V 4064M

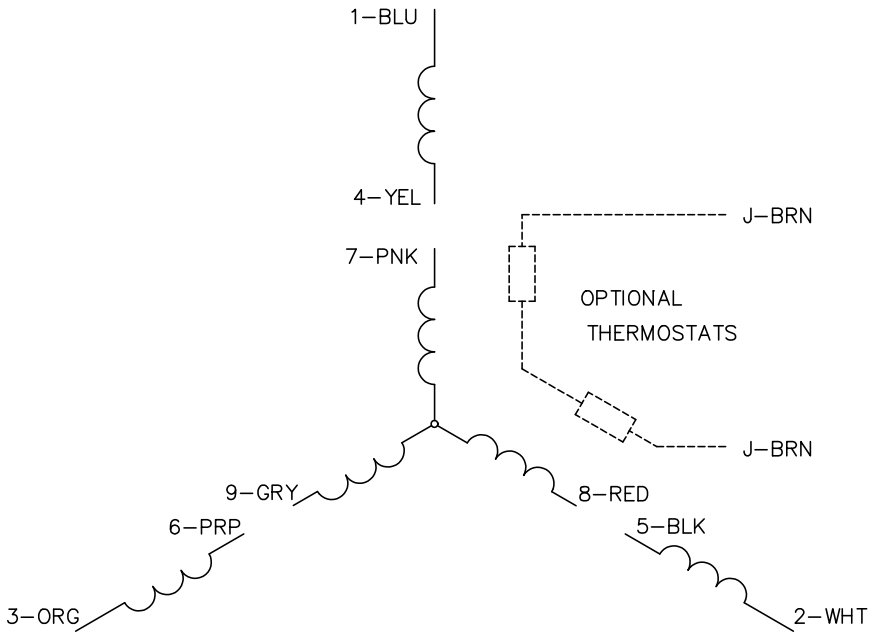
TORQUES(LB-FT): PO=427 PU=187 LR=246 LRA=330

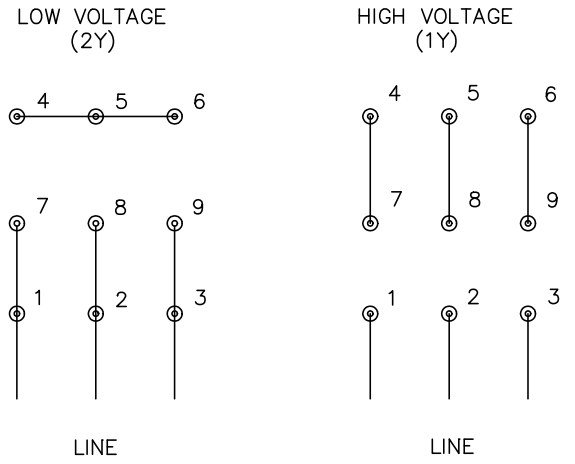
Typical performance - not guaranteed values.




40LY-000-045
(4034-4056) = 26.19
(4057-4070) = 27.19
(4072-4076) = 27.69
(4078-4082) = 28.19 (6 PL ONLY)
(4082) = 28.69 (4 PL ONLY)
4084-4086) = 28.69
5.00
4.78
.25
.50 KEY
3.88 LONG
12.500
12.497
Ø13.08
Ø2.125
2.124
6 HOLES
Ø.66
10.50
.88
12.00
5.25
13.75
13.83
12.27
6.70
45°
45°
1 LIFT LUG
DIAGONALLY
SPACED
(EA END)
14.66
8.00 +.00 -.06
4 HOLES
.62-11 TAP
Ø11.00 B.C.
4.25
.31
LEAD HOLE
Ø2.50
6.23
6.23
9.72
7.13
14.25
INTERNAL
SHAFT
GROUND
BP5305
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT AUTOCAD TO SWD DRAWING
REV: A
VERSION: 01
REVISED: 12:33:22 05/09/2024
TDR: 000001231935
MODEL NO. 40LY-000-045
REF: -
BY: USALMAZ
B
BALDOR - RELIANCE®
HORZ OPSB 324-6TC W/AEGIS INT SHAFT GND
40LY-000-045

CD0005





NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS